

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Jeffrey A. Hubbell, Chandrashekhar P. Pathak, Amarpeet S. Sawhney, Neil P. Desai, Jennifer L. Hill and Syed F. A. Hossainy

Serial No.: Continuation of 09/694,836 Art Unit: Not Yet Assigned

Filed: June 25, 2003 Examiner: Not Yet Assigned

For: *COATING SUBSTRATES BY POLYMERIZING MACROMERS HAVING FREE
RADICAL-POLYMERIZABLE SUBSTITUENTS*

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56 and 37 C.F.R. §1.97, Applicants submit an Information Disclosure Statement, including twenty (20) pages of Form PTO-1449. All of the documents cited below were cited by or submitted to the Patent Office in Application Serial No. 09/694,836, filed October 23, 2000, to which the present application claims priority. Pursuant to 37 C.F.R. §1.98(d), Applicants are not enclosing copies of these publications. Copies will be provided upon request, however.

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b) prior to a first Office Action on the merits. It is believed that no fee is required with this submission. However, should a fee be required, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 50-1868.

U.S. Patents

<u>Number</u>	<u>Issue Date</u>	<u>Patentee</u>	<u>Class/Subclass</u>
3,960,150	06-01-1976	Hussain, et al.	128/260
3,981,303	09-21-1976	Higuchi, et al.	128/260
3,986,510	10-19-1976	Higuchi, et al.	128/260
3,993,071	11-23-1976	Higuchi, et al.	128/260
4,076,800	02-28-1978	Marsh, et al.	424/70
4,193,845	03-18-1980	Kaetsu, et al.	435/182
4,194,066	03-18-1980	Kaetsu, et al.	435/182
4,195,129	03-25-1980	Fukui, et al.	435/182
4,226,938	10-07-1980	Yoshida, et al.	435/176
4,272,617	06-09-1981	Kaetsu, et al.	435/182
4,283,325	08-11-1981	Berthet, et al.	424/630
4,295,762	10-20-1981	Slovinsky	405/264
4,298,002	11-03-1981	Ronel, et al.	128/260
4,321,117	03-23-1982	Kaetsu, et al.	522/5
4,329,332	03-11-1982	Courvreur, et al.	424/125
4,352,883	10-05-1982	Lim	435/178
4,359,483	11-16-1982	Kaetsu, et al.	427/2
4,376,059	03-08-1983	Davis, et al.	424/499
4,391,909	07-05-1983	Lim	435/178
4,409,331	10-11-1983	Lim	435/178
4,411,754	10-25-1983	Kaetsu, et al.	522/73
4,434,150	02-28-1984	Azad, et al.	424/1.1
4,450,150	05-22-1984	Sidman	424/1.1
4,511,478	04-16-1985	Nowinski, et al.	201/691
4,526,938	07-02-1985	Churchill, et al.	525/415
4,563,489	01-07-1986	Urist	524/21
4,590,068	05-20-1986	Berthet, et al.	424/81
4,605,622	08-12-1986	Hasegawa, et al.	435/182
4,637,931	01-20-1987	Schmitz	424/78
4,647,536	03-03-1987	Mosbach, et al.	435/177
4,652,443	03-24-1987	Yoshida, et al.	424/487
4,663,286	05-05-1987	Tsang, et al.	435/178
4,689,293	08-25-1987	Goosen, et al.	435/1
4,744,933	05-17-1988	Rha, et al.	264/4.3
4,745,160	05-17-1988	Churchill, et al.	525/415
4,749,620	06-07-1988	Rha, et al.	428/402
4,774,178	09-27-1988	Egerer, et al.	435/41
4,791,061	12-13-1988	Sumino, et al.	435/178
4,804,691	02-14-1989	English, et al.	523/118
4,806,355	02-21-1989	Goosen, et al.	424/424
4,822,535	04-18-1989	Ekman, et al.	264/4.3
4,826,945	05-02-1989	Cohn, et al.	528/76

U.S.S.N.: Continuation of 09/694,836
 Filed: June 25, 2003
 INFORMATION DISCLOSURE STATEMENT

4,888,413	12-19-1989	Domb	528/272
4,889,722	12-26-1989	Sheffield, et al.	424/450
4,913,903	04-03-1990	Sudmann, et al.	424/426
4,916,193	04-10-1990	Tang, et al.	525/413
4,925,677	05-15-1990	Feijen	424/484
4,931,279	06-05-1990	Bawa, et al.	424/487
4,938,763	07-03-1990	Dunn, et al.	604/891.1
4,942,035	07-17-1990	Churchill, et al.	424/423
4,950,596	08-21-1990	Cheng, et al.	435/94
4,957,744	09-18-1990	della Valle, et al.	424/401
5,037,656	08-06-1991	Pitt, et al.	424/443
5,149,416	09-22-1992	Osterhoudt, et al.	204/299
5,153,002	10-06-1992	McMullen	424/473
5,160,745	11-03-1992	DeLuca, et al.	424/487
5,183,690	02-02-1993	Carr, et al.	424/499
5,185,408	02-09-1993	Tang, et al.	525/415
5,219,564	06-15-1993	Zalipsky, et al.	424/78.17
5,268,182	12-07-1993	Brinker, et al.	424/499
5,271,961	12-21-1993	Mathiowitz, et al.	427/213.31
5,278,201	01-11-1994	Dunn, et al.	523/113
5,278,202	01-11-1994	Dunn, et al.	523/113
5,286,495	02-15-1994	Batich, et al.	424/499
5,288,500	02-22-1994	Ibsen	424/499
5,334,640	08-02-1994	Desai, et al.	524/56
5,410,016	04-25-1995	Hubbell, et al.	528/354
5,432,210	07-11-1995	Bogan, Jr.	523/201
5,529,914	06-25-1996	Hubbell et al.	435/182
5,573,934	11-12-1996	Hubbell et al.	435/182
5,834,274	11-10-1998	Hubbell et al.	435/177
5,837,747	11-17-1998	Soon-Shiong et al.	522/26
5,843,743	12-01-1998	Hubbell et al.	435/177

Foreign Documents

<u>Number</u>	<u>Publication Date</u>	<u>Patentee</u>	<u>Country</u>
WO 91/10425	07-25-1991	Brown University Research Foundation	PCT
WO 93/09176	05-13-1993	Clover Consolidated, Ltd.	PCT
WO 93/17669	09-16-1993	Board of Regents, The University of Texas System	PCT
WO 93/21266	10-28-1993	Clover Consolidated, Ltd.	PCT
EP 0 195 304 A	09-24-1986	The Dow Chemical Co.	EP
JP 1-324743	08-12-1991	General Director National Circulatory Disease Hospital	JP

Publications

ALTMAN, et al., "Long-term plasma glucose normalization in experimental diabetic rats with microencapsulated implants of benign human insulinomas," *Diabetes* 35:625-33 (1986).

AMUDESWARI, et al., "Short-term biocompatibility studies of hydrogel-grafted collagen copolymers," *J. Biomed. Materials Res.* 20:1103-09 (1986).

ANDRADE, et al., "Protein Adsorption and Materials Biocompatibility: A Tutorial Review and Suggested Hypothesis," *Advances in Polymer Science*, published by Springer-Verlag Berlin Heidelberg, pp. 1-63 (1986).

BUCK, "Cell Surface Receptors for Extracellular Matrix Molecules," *Ann. Rev. Cell Bio.* 3:179-205 (1987).

CHESNEAU, et al., "Polymerization induito sous Irradiation Lager Visible," *J. Bio. Ang. Chemie.* 135:41-64 (1985).

CHIANG, et al., "Preparation and properties of UV-autocurable BTDA-based polyester multiacrylates. I. effects of acrylic functionality and polyl molecular weight," *J. App. Pol. Sci.* 41:2971-85 (1990).

CHUN, et al., "Studies on microbial transformations XIX. use of immobilized cells of *Streptomyces Roseochromogenes* for the 16 a-hydroxylation of dehydroepiandrosterone," *J. Gen. App. Microbiol.* 27:505-09 (1981).

COHN, et al., "Biodegradable PEO/PLA block copolymer," *J. Biomed. Materials Research* 22:993-1009 (1988).

COLEMAN, et al., "Blood-materials interactions: The minimum interfacial free energy and the optimum polar/apolar ratio hypothesis," *J. Biomed. Material Res.* 16:381-398 (1982).

CROOKS, et al., "Microencapsulation of mammalian cells in a HEMA-MMA copolymer: effects on capsule morphology and permeability," *J. of Biomedical Materials Res.* 24:1241-62 (1990).

DARQUY, et al., "Immunoisolation of pancreatic a cells by microencapsulation – an *in vitro* study," *Diabetologia* 28:776-80 (1985).

DENNISON, Ph.D. Thesis, Massachusetts Institute of Technology (1986).

DESAI, et al., "Solution technique to incorporate polyethylene oxide and other water-soluble polymers into surfaces of polymeric biomaterials," *Biomaterials* 12:144-53 (1991).

DESAI, et al., "Surface modifications of polymeric biomaterials for reduced thrombogenicity," *Polymeric Materials Science and Engineering Proceedings of the ACS Division of Polymeric Materials Science and Engineering* 62:731-35 (1990).

DESAI, et al., "Surface physical interpenetrating networks of poly(ethylene terephthalate) and poly(ethylene oxide) with biomedical applications," *Macromolecules* 25:226-32 (1992).

DESAI, et al., "The short-term blood biocompatibility of poly(hydroxyethyl methacrylate-co-methyl methacrylate) in an *in vitro* flow system measured by the digital videomicroscopy," *J. Biomaterial Sci. Polymer Ed.* 1(2):123-46 (1989).

DIAMOND, et al., "Synergistic effects of interceed (Tc7) and heparin in reducing adhesion formation in the rabbit uterine horn model," *Fertility and Sterility* 55(2):389-94 (1991).

DOMB, et al., "Poly(anhydrides). 3. poly(anhydrides) based on aliphatic aromatic diacids," *J. Macromolecules* 22:3200-04 (1989).

DOODY, et al., "Recombinant tissue plasminogen activity reduces adhesion formation in a rabbit uterine horn model," *Fertility and Sterility* 51(3):509-12 (1989).

DUNN, et al., "Synergistic effect of intraperitoneally administered calcium channel blockade and recombinant tissue plasminogen activator to prevent adhesion formation in an animal model," *Am. J. Obstet. and Gynecol.* 164(5):1327-30 (1991).

DUPUY, et al., "In Situ Polymerization of a Microencapsulating Medium Round Living Cells," *J. of Biomedical Materials Res.* 22:1061-70 (1988).

DUPUY, et al., "Microencapsulation of isolated pituitary cells by polyacrylamide microlatex coagulation on agarose beads," *Biomaterials* 12:493-495 (1991).

EATON, "Dye sensitized photopolymerization," *Advances in Photochemistry*, 13:427-81 (John Wiley & Sons, Inc. 1986).

EPAILLARD, et al., "Plasma Induced Polymerization," *J. Applied Polymer Sci.* 38:887-98 (1989).

EPAILLARD, et al., "Polymerisation induit par un plasma froid. Etude des mecanismes de polymerisation en fonction de l'epaisseur du film," *Makromol. Chem.* 189:1035-42 (1988).

FOUASSIER, et al., "Polymerization induit sous irradiation laser visible 4, Le systeme eosine/photoamorceur ultra-violet/amine," *Makromol. Chem.* 192:245-260 (1991).

FUÉRTGES, et al., "The clinical efficacy of poly(ethylene glycol) modified proteins," *J. Controlled Release* 11:139-48 (1990).

FUKUI, et al., "Application of photo-crosslinkable resin to immobilization of an enzyme," *FEBS Letters* 66(2):179-82 (1976).

FUKUI, et al., "Applications of biocatalytic immobilized by prepolymer methods," *Adv. of Biochemical Eng. and Biotech.* 1201:1-33 (1984).

FUKUI, et al., "Entrapment of biocatalysts with photo-cross-linkable resin prepolymers and urethane resin prepolymers," *Methods in Enzymology* 135:230-53 (1987).

FUKUI, et al., "Several novel methods for immobilization of enzymes microbial cells and organelles," *Biochimie* 62:381-86 (1980).

FUKUZAI, et al., "A new biodegradable copolymer of glycolic acid and lactones with relatively low molecular weight prepared by direct copolycondensation in the absence of catalysts," *J. of Biomedical Materials Research* 25:315-28 (1991).

GABBAY, et al., "New outlook on pericardial substitution after open heart operations," *Ann. Thorac. Surg.* 48:803-12 (1989).

GHARAPATIAN, et al., "Encapsulation of viable cells within polyacrylate membranes," *Biotechnology and Bioengineering* 28:1595-1600 (1986).

GHARAPATIAN, et al., "Polyacrylate microcapsules for cell encapsulation: Effects of copolymer structure on membrane properties," *Biotechnology and Bioengineering* 30:775-79 (1987).

GIBBLE, et al., "Fibrin glue: the perfect operative sealant?," *Transfusion* 30(8):741-47 (1990).

GIN, et al., "Agarose encapsulation of islets of langerhans: Reduced toxicity *in vitro*," *J. Microencapsulation* 4:239-42 (1987).

GOLANDER, et al., "Preparation and protein adsorption properties of photopolymerized hydrophilic films containing N-vinylpyrrolidone (NVP), acrylic acid (AA) or ethyleneoxide (EO) units as studied by ESCA," *Colloids and Surfaces* 21:149-65 (1986).

GOLDBERG, et al., "An evaluation of the gore-tex surgical membrane for the prevention of postoperative peritoneal adhesion," *Obstetrics and Gynecology* 70(6):846-48 (1987).

GOMBOTZ, et al., "Immobilization of poly(ethylene oxide) on poly(ethylene terephthalate) using a plasma polymerization process," *J. of Applied Polymer Science* 37:91-107 (1989).

GOOSEN, et al., "Optimization of microencapsulation parameters: Semipermeable microcapsules as a bioartificial pancreas," *Biotechnology and Bioengineering* 27:146-50 (1985).

GRAHAM, et al., "Hydrogels for controlled drug delivery," *Biomaterials* 5:27-36 (1994).

HARRIS, "Laboratory synthesis of polyethylene glycol derivatives," *Micromol. Chem. Phys.* C25(3):325-73 (1985).

HATTORI, et al., "Fibroblast Cell Proliferation on Charged Hydroxyethyl Methacrylate Copolymers," *J. of Colloid and Interface Science* 104:72-78 (1985).

HELLER, et al., "Controlled release of water-soluble macromolecules from bioerodible hydrogels," *Biomat.* 40:262-66 (1983).

HELLER, et al., "Poly(ortho esters)," Biodegradable Polymers as Drug Delivery System (Chasin, et al., eds.), pp. 121-161 (1990).

HOLLAND, et al., "Polymers for biodegradable medical devices. 1. The potential of polyesters as controlled macromolecular release systems," *J. Controlled Release* 4:155-80 (1986).

HOLTZ, "Prevention and management of peritoneal adhesions," *Fertility and Sterility* 42(4):497-07 (1984).

HORBETT, "Mass action effects on competitive adsorption of fibrinogen from hemoglobin solutions and from plasma," *Rhomb. Haemostas.* (Stuttgart), 51(2):174-81 (1984).

HU, et al., "Effect of soft segment in degradation kinetics in polyethylene glycol/poly(L-lactide) block copolymers," *Polymer Bulletin* 30:669-76 (1993).

HUFFMAN, et al., "Effect of carboxyl end groups on hydrolysis of polyglycolic acid," *J. Polymer Science, Polymer Chemistry Edition* 23:1939-1951 (1985).

HUNT, et al., "Synthesis and evaluation of a prototypal artificial red cell," *Science* 6:1165-68 (1985).

HUNTER, et al., "Surface modification of polyurethane to promote long-term patency of peritoneal access devices," *Trans. Am. Soc. Artif. Intern. Organs* 29:250-54 (1983).

Interceed (TC7) Adhesion Barrier Study Group, "Prevention of postsurgical adhesions by Interceed (TC7), an absorbable adhesion barrier: a prospective, randomized multicenter clinical study," *Fertility and Sterility* 51(6):933-938 (1989).

ITOH, et al., "Development of novel photocurable medical-use resins; Molecular design considerations and basic properties," *Jap. J. Artif. Organs* 18(1):132-136 (1989).

IWATA, et al., "Evaluation of microencapsulated islets in agarose gel as bioartificial pancreas by studies of hormone secretion in culture and by xenotransplantation," *Diabetes* 38:224-25 (1989).

IWATA, et al., "The use of photocrosslinkable polyvinyl alcohol in the immunoisolation of pancreatic islets," *Transplantations Proceedings* 22(2): 797-99 (1990).

KANAKO, et al., CA 84:123221g, "Radiation-induced graft copolymerization to polyester, XVII. Grafting of polyethylene glycol dimethacrylates and diacrylates onto poly(ethylene terephthalate) fabric with electron beams," *Nippon Genshiryoku Kenkyusho Nempo* 5030:48-59 (1975).

KAREL, et al., "The immobilization of whole cells: engineering principals," *Chemical Engineering Science* 40(8):1321-54 (1985).

KARU, "Yearly review - Effects of visible radiation on cultured cells," *Photochemistry and Photobiology* 52(6): 1089-98 (1990).

KENLEY, et al., "Poly(lactide-co-glycolide) decomposition kinetics *in vivo* and *in vitro*," *Macromolecules* 20:2398-2403 (1987).

KIMURA, et al., "Some properties of an immobilized glycosyl system of yeast in fermentative phosphorylation of nucleotides," *European J. Appl. Microbiol. Biotechnol.* 11:78-80 (1981).

KING, et al., "Alginate-polylysine microcapsules of controlled membrane molecular weight cutoff for mammalian cell culture engineering," *Biotechnology Progress* 3(4):231-40 (1987).

KOBAYASHI, et al., "Water-curable and biodegradable prepolymers," *J. Biomed. Mat. Res.* 25:1481-94 (1991).

KOSHIBA, et al., "Properties of ultra-violet curable polyurethane acrylates," *J. Materials Sci.* 17:1447-58 (1982).

KRICHELDORF, et al., "ABA Triblock copolymers of L-Lactide and Poly(ethylene glycol)," *Makromol. Chem.* 194:715-25 (1993).

KULKARNI, et al., "Biodegradable Poly(lactic acid) Polymers" *J. Biomed. Mater. Res.* 5:169-81 (1971).

KULKARNI, et al., "Polylactic acid for surgical implants," *Arch. Surg.* 93:841-45 (1966).

KUMAKURA, et al., "Immobilization of microbial cells in membrane form by radiation-induced cast-polymerization," *Die Angewandte Makromol. Chem.* 115:75-86 (1986).

LACY, et al., "Maintenance of normoglycemia in diabetic mice by subcutaneous xenografts of encapsulated islets," *Science* 254:1782-94 (1991).

LAMBERTI, et al., "Microencapsulation of mammalian cells in polyacrylates," *Applied Biochemistry and Biotechnology* 10:101-05 (1984).

LEACH, et al., "Reduction of postoperative adhesions in the rat uterine horn model with polyxamer 407," *Am. J. Obstet. Gynecol.* 162(5):1317-19 (1990).

LEE, et al., "Protein-resistant surfaces prepared by PEO-containing block copolymer surfactants," *J. Biomedical Materials Research* 23:351-68 (1989).

LIM, et al., "Microencapsulated islets as bioartificial endocrine pancreas," *Science* 210:908-10 (1980).

LIN, et al., "Optically clear simultaneous interpenetrating polymer networks based on Poly(ethylene glycol) diacrylate and epoxy. I. Preparation and characterization," *J. Polymer Sci.* 30:1941-51 (1992).

LIPATOYA, "Medical polymer adhesives," *Advances in Polym. Sci* 79:85-92 (1986).

MAECHLING-STSRASSER, et al., "Peadsorption of polymers on glass and silica to reduce fibrinogen adsorption," *J. of Biomedical Materials Research* 23:1385-93 (1989).

MALLABONE, et al., "Microencapsulation of human diploid fibroblasts in cationic polyacrylates," *Dept. of Chem. Eng. and Applied Chem. and Centre for Biomaterials* (1989).

MATSUDA, et al., "Photoinduced prevention of tissue adhesion," *ASAIO Trans.* 38:M154-M155 (1992).

MAYER, et al., "Effect of viscous macromolecules on peritoneal plasminogen activator activity: A potential mechanism for their ability to reduce postoperative adhesion formation," *Am. J. Obstet. L Gynecol.* 159(4):957-63 (1988).

McMAHON, et al., "Feasibility of cellular microencapsulation technology for evaluation of anti-human immunodeficiency virus drug *in vivo*," *J. Nat. Cancer Inst.* 82(22):1761-65 (1990).

MENZIES, et al., "The role of plasminogen activator in adhesion prevention," *Surgery Gynecology and Obstetr.* 172:362-66 (1991).

MERRILL, et al., "Platelet-compatible hydrophilic segmented polyurethanes from polyethylene glycols and cyclohexane diisocyanate," *Trans. Am. Soc. Artif. Intern. Organs* 28:482-87 (1982).

MILLER, et al., "Degradation rates of oral resorbable implants (Polylactates and Polyglycolates): Rate modification with changes in PLA/PGA copolymer ratios," *J. Biomed. Mater. Res.* 11:711-19 (1977).

MIYAKE, et al., "Solution properties of synthetic polypeptides. XVIII: Helix-coil transition of poly-m2-(2-Hydroxyethyl)L-Glutamine," *Biopolymers* 13:1173-86 (1974).

MIYAMA, et al., "Graft copolymerization of methoxypoly (ethylene Glycohol) methacrylate onto polyacrylonitrile and evaluation of nonthrombogenicity of the copolymer," *Journal of Applied Polymer Science* 35:115-25 (1988).

MORI, et al., "A new antithrombogenic material with long polyethylenoxide chains," *Trans. Am. Soc. Artif. Intern. Organs* 28:459-463 (1982).

NAGAOKA, et al., "Clinical application of antithrombogenic hydrogel with long poly(ethylene oxide) chains," *Biomaterials* 11:119-121 (1990).

NAGAOKA, et al., "Interaction between blood components and hydrogels with Poly(ethylene) Chains," Hoffman, et al., Polymers as Biomaterials, Shalaby, ed., pp. 360-75 (Plenum Press).

NECKERS, et al., "Photopolymerization using derivatives of fluorescein," American Chemical Society, Proceedings of the ACS Division of Polymeric Materials: Science and Engineering, 60:15-16 (1989).

NOJIRI, et al., "In Vivo protein adsorption onto polymers: A transmission electron microscopic study," *Trans. Am. Soc. Artif. Intern. Organs* 35:357-61 (1989).

O'SHEA, et al., "Encapsulation of rat Islets of langerhans prolongs xenograft survival in diabetic mice," *Diabetes* 35:943-46 (1986).

OKADA, et al., "Application of entrapped growing yeast cells to peptide secretion system," *Appl. Microbiol. Biotechnol.* 26:112-16 (1987).

OMATA, et al., "Immobilization of microbiol cells and enzymes with hydrophobic photo-crosslinkable resin prepolymers," *European J. Appl. Microbiol.* 6:207-15 (1979).

OMATA, et al., "Stereoselective hydrolysis of d,l-methyl succinate by gel-entrapped rhodotorula minute uzr texensis cells in organic solvent," *Eur. J. Microbiol. Biotechnol.* 11:199-04 (1981).

OMATA, et al., "Transformation of steroids by gel-entrapped nocardia rhodocrous cells in organic solvent," *Eur. J. Appl. Microbiol. Biotechnol.* 8:143-55 (1979).

PAGIDAS, et al., "Effect of ringer's lactate. Interceed (TC7) and gore-tex surgical membrane on postsurgical adhesion formation," *Fertility and Sterility* 57(1): 199-01 (1992).

PARK, et al., "Immobilization of arthrobacter-simplex cells in thermally reversible hydrogels comparative effects of organic solvent and polymeric surfactant on steroid conversion," *Biotechnology Letters* 11(1):17-22 (1989).

PETERSON, "Polyethylene glycol diacrylates as embedding media for electron microscopy," Thirtieth Annual Meeting, Electron Microscopy Society of America and First Pacific Regional Conference on Electron Microscopy, 144-45 (1972).

PHILIPS, et al., "Radiation curable water dilutable polyester acrylates," *European Polymers Paint Colour J.* 183(4322): 38-40 (1993).

PITT, et al., "Aliphatic polyesters. I. The degradation of Poly(-caprolactone) *in vivo*," *J. Applied Polymer Science* 26:3779-87 (1981).

PITT, et al., "Aliphatic polyesters. II. The degradation of poly(DL-lactide), poly (caprolactone), and their copolymers *in vivo*," *Biomaterials* 2:215-20 (1981).

PRIOLA, et al., "Investigation on the structure-property relationships for films obtained from UV curable coatings," *Progress in Organic Coatings* 22:301-14 (1993).

PRIOLA, et al., "Properties of polymeric films obtained from u.v. cured poly(ethylene glycol) diacrylates," *Polymer*. 34(17):3653-3657 (1993).

PUNNONEN, et al., "Polyethylene glycol 4000 in the prevention of peritoneal adhesions," *Fertility and Sterility* 38(4):491-92 (1982).

RÄTZSCH, et al., "Strahlkenchische Antielektrostatik-Ausrüstung," *Acta. Polymerica* 41(8):453-460 (1990).

REACH, et al., "The U-shaped bioartificial pancreas with rapid glucose-insulin kinetics," *Diabetes* 33:752-61 (1984).

REMPP, et al., "Anionically polymerized star macromolecules having divinyl benzene cores with grafted Poly(Ethylene oxide) arms as biomaterials," Abstract, *Polymer Reprints* 31(1):215 (1990).

REUVENY, et al., "Factors affecting cell attachment, spreading, and growth on derivatized microcarriers. I. Establishment of working system and effect of the Tye of the amino-charged groups," *Biotechnol. Bioeng.* 25:469-80 (1983).

RONEL, et al., "Macroporous hydrogen membranes for a hybrid artificial pancreas. 1. synthesis and chamber fabrication," *J. of Biomedical Materials Res.* 17(5):855-64 (1983).

SAWHNEY, et al., "Poly(ethylene oxide)-graft-poly(L-lysine) copolymers to enhance the biocompatibility of poly(L-lysine)-alginate microcapsule membranes," *Biomaterials* 13(12):863-870 (1992).

SAWHNEY, et al., "Rapidly degraded terpolymers of dl-lactide, glycolide, and acaprolactone with increased hydrophilicity by copolymerization with polyethers," *J. Biomedical Materials Research* 24:1397-1411 (1990).

SEFTON, et al., "Hydrophilic polyacrylates for the microencapsulation of fibroblasts or pancreatic islets," *J. of Controlled Release* 6:177-187 (1987).

SHIMIZU, et al., "Studies on composites of collagen and a synthetic polymer," *Biomat. Med. Dev. Art. Org.* 6(4):375-391 (1978).

ŠKARDA, et al., "Biodegradable hydrogel for controlled release of biologically active macromolecules," *J. Bioactive and Compatible Polymers* 8:24-37 (1993).

SONOMOTO, et al., "Growth of *Curvularia lunata* spores into mycelia form within various gels, and steroid 11-hydroxylation by the entrapped mycelia," *J. Ferment. Technol.* 59(6):465-469 (1981).

SPECKHARD, et al., "Properties of UV-curable polyurethane acrylates: Effect of reactive diluent," *J. Appl. Poly. Sci.* 30(2):647-66 (1985).

SPILIZEWSKI, et al., "The effect of hydrocortisone acetate loaded Poly(DL-lactide) films on the inflammatory response," *J. Controlled Release* 2:197-203 (1985).

STEINLEITNER, et al., "Poloxamer 407 as an intraperitoneal barrier material for the prevention of postsurgical adhesion formation and reformation in rodent models for reproductive surgery," *Obstetrics and Gynecology* 77(1):48-52 (1991).

STEVENSON, et al., "Graft copolymer emulsions of sodium alginate with hydroxyalkyl methacrylates for microencapsulation," *Biomaterials* 8:449-57 (1987).

STEVENSON, et al., "Microencapsulation of mammalian cells in a hydroxyethyl methacrylate-methyl methacrylate copolymer: Preliminary development," *Biomat. Art. Cells* 16:747-69 (1988).

SUN, et al., "Encapsulated versus modified endocrine cells for organ replacement," *Trans. Am. Soc. Artif. Intern. Organs* 33:787-90 (1987).

SUN, et al., "Non-fouling biomaterial surfaces: II. Protein adsorption on radiation grafted polyethylene glycol for methacrylate copolymers," *Center for Bioengineering* 28(1):292-94 (1987).

SUN, et al., "The use, in diabetic rats and monkeys, of artificial capillary units containing Cultured islets of langerhans Artificial Endocrine Pancreas," *Diabetes* 26(12):1136-39 (1977).

SUZUKI, et al., "Microencapsulation and dissolution properties of a neuroleptic in a biodegradable polymer, Poly(D,L-lactide)," *J. Pharmaceutical Sciences* 74(1):20-24 (1985).

TANAKA, et al., "Immobilization of yeast microbodies by inclusion with photo-crosslinkable resins," *Eur. J. Biochem.* 80:193-97 (1977).

THOMAS, ed., "Lumen," in Taber's Cyclopedic Medical Dictionary, 12th Edition (F.A. Davis Company, Philadelphia).

THOMPSON, et al., "Fibrin glue: A review of its preparation efficacy, and adverse effects as a topical hemostat," *Drug Intelligence and Clinical Pharmacy* 22:946-52 (1988).

URETZKY, et al., "Long-term evaluation of a new selectively biodegradable vascular graft coated with polyethylene oxide-poly(lactic acid) for right ventricular conduit," *J. Thorac Cardiovasc. Surg.* 133:769-80 (1990).

URMAN, et al., "Effect of hyaluronic acid on postoperative intraperitoneal adhesion formation and reformation in the rat model," *Fertility and Sterility* 56(3):568-70 (1990).

URMAN, et al., "Effect of hyaluronic acid on postoperative intraperitoneal adhesion formation and reformation in the rat model," *Fertility and Sterility* 56(3):563-67 (1991).

VAN NEERBOS, "Parameters in UV curable materials which influence cure speed," *J. Oil Col. Chem. Assoc.* 61(1):241-50 (1978).

VAN WACHEM, et al., "Adhesion of cultured human endothelial cells onto methacrylate polymers with varying surface wettability and charge," *Biomaterials* 8:323-28 (1987).

VISSCHER, et al., "Biodegradation of and tissue reaction to 50:50 poly(DL-lactide-co-glycolide) microcapsules," *J. Biomedical Materials Research* 19:349-65 (1985).

WEN, ET al., "Microcapsules through polymer compellation," *Dept. of Chemistry and Inst. For Aviation Research* (1990).

WONG, et al., "The viability and regeneration of artificial cell microencapsulated rat hepatocyte xenograft transplants in mice," *Biomat.* 16(4):731-39 (1988).

WOODWARD, et al., "The intracellular degradation of poly(ϵ -caprolactone)," *J. Biomedical. Materials Research* 19:437-44 (1985).

WUJEK, et al., "A carbohydrate polymer that effectively prevents epidural fibrosis at laminectomy sites in the rat," *Exp. Neurology* 114:237-45 (1991).

ZHU, et al., "Preparation and properties of D,L-lactide and ethylene oxide copolymer: A modifying biodegradable polymeric material," *J. Polymer Sci. Part C: Polymer Letters* 24:331-37 (1986).

ZHU, et al., "Preparation characterization and properties of polylactide (PLA)-Poly(ethylene Glycol) (PEG) copolymers: A potential drug carrier," *J. Applied Sci.* 39:1-9 (1990).

ZHU, et al., "Super microcapsules" (SMC), I. Preparation and Characterization of Star Polyethylene Oxide (PEO)-Polylactide (PLA) Copolymers," *J. Polymer Sci.: Part A: Polymer Chemistry* 27:2151-59 (1989).

Remarks

This statement should not be interpreted as a representation that an exhaustive search has been conducted or that no better art exists. Moreover, Applicants invite the Examiner to make an independent evaluation of the cited art to determine its relevance to the subject matter of the present application. Applicants are of the opinion that their claims patentably distinguish over the art referred to herein, either alone or in combination.

Respectfully submitted,



Patrea L. Pabst
Reg. No. 31,284

Dated: June 25, 2003

HOLLAND & KNIGHT LLP
One Atlantic Center
1201 West Peachtree Street, N.E.
Suite 2000
Atlanta, Georgia 30309-3400
404-817-8473
FAX 404-817-8588
www.hklaw.com
ATL1 #582282 v1



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known	
			Application Number	Continuation of 09/694,836
			Filing Date	June 25, 2003
			First Named Inventor	Jeffrey A. Hubbell
			Group Art Unit	
Examiner Name				
Sheet 1 of 20	Attorney Docket Number		UTSB 493 CIP CON (5)	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
		3,960,150		Hussain, et al.	06-01-1976
		3,981,303		Higuchi, et al.	09-21-1976
		3,986,510		Higuchi, et al.	10-19-1976
		3,993,071		Higuchi, et al.	11-23-1976
		4,076,800		Marsh, et al.	02-28-1978
		4,193,845		Kaetsu, et al.	03-18-1980
		4,194,066		Kaetsu, et al.	03-18-1980
		4,195,129		Fukui, et al.	03-25-1980
		4,226,938		Yoshida, et al.	10-07-1980
		4,272,617		Kaetsu, et al.	06-09-1981
		4,283,325		Berthet, et al.	08-11-1981
		4,295,762		Slovinsky	10-20-1981
		4,298,002		Ronel, et al.	11-03-1981
		4,321,117		Kaetsu, et al.	03-23-1982
		4,329,332		Courvreur, et al.	03-11-1982

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office. ³	Number ⁴	Kind Code ⁵ (if known)		
		PCT	WO 91/10425		Brown University Research Foundation	07-25-1991
		PCT	WO 93/09176		Clover Consolidated, Limited	05-13-1993
		PCT	WO 93/17669		Board of Regents, The University of Texas System	09-16-1993
		PCT	WO 93/21266		Clover Consolidated, Limited	10-28-1993
		EP	0 195 304		The Dow Chemical Company	09-24-1986
		JP	1-324743		General Director National Circulatory Disease Hospital	08-12-1991

Examine Signature		Date Considered	
-------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO: Assistant Commissioner for Patent, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Application Number		Continuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
				Examiner Name			
Sheet	2	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		4,352,883		Lim	10-05-1982	
		4,359,483		Kaetsu, et al.	11-16-1982	
		4,376,059		Davis, et al.	03-08-1983	
		4,391,909		Lim	07-05-1983	
		4,409,331		Lim	10-11-1983	
		4,411,754		Kaetsu, et al.	10-25-1983	
		4,434,150		Azad, et al.	02-28-1984	
		4,450,150		Sidman	05-22-1984	
		4,511,478		Nowinski, et al.	04-16-1985	
		4,526,938		Churchill, et al.	07-02-1985	
		4,563,489		Urist	01-07-1986	
		4,590,068		Berthet, et al.	05-20-1986	
		4,605,622		Hasegawa, et al.	08-12-1986	
		4,637,931		Schmitz	01-20-1987	
		4,647,536		Mosbach, et al.	03-03-1987	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM- DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office. ³	Number ⁴	Kind Code ⁵ (if known)				

Examinee Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO: Assistant Commission for Patent, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	Continuation of 09/694,836
				Filing Date	June 25, 2003
				First Named Inventor	Jeffrey A. Hubbell
				Group Art Unit	
Examiner Name					
Sheet	3	of	20	Attorney Docket Number	UTSB 493 CIP CON (5)

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		4,652,443		Yoshida, et al.	03-24-1987	
		4,663,286		Tsang, et al.	05-05-1987	
		4,689,293		Goosen, et al.	08-25-1987	
		4,744,933		Rha, et al.	05-17-1988	
		4,745,160		Churchill, et al.	05-17-1988	
		4,749,620		Rha, et al.	06-07-1988	
		4,774,178		Egerer, et al.	09-27-1988	
		4,791,061		Sumino, et al.	12-13-1988	
		4,804,691		English, et al.	02-14-1989	
		4,806,355		Goosen, et al.	02-21-1989	
		4,822,535		Ekman, et al.	04-18-1989	
		4,826,945		Cohn, et al.	05-02-1989	
		4,888,413		Domb	12-19-1989	
		4,889,722		Sheffield, et al.	12-26-1989	
		4,913,903		Sudmann, et al.	04-03-1990	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office. ³	Number ⁴	Kind Code ⁵ (if known)				

Examine Signature		Date Considered	
-------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO: Assistant Commission for Patent, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		C mplete if Kn wn			
		Applicati n Number	Continuation of 09/694,836		
		Filing Date	June 25, 2003		
		First Named Inventor	Jeffrey A. Hubbell		
		Group Art Unit			
Examiner Name					
Sheet	4	of	20	Attorney Docket Number	UTSB 493 CIP CON (5)

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		4,916,193		Tang, et al.	04-10-1990	
		4,925,677		Feijen	05-15-1990	
		4,931,279		Bawa, et al.	06-05-1990	
		4,938,763		Dunn, et al.	07-03-1990	
		4,942,035		Churchill, et al.	07-17-1990	
		4,950,596		Cheng, et al.	08-21-1990	
		4,957,744		della Valle, et al.	09-18-1990	
		5,037,656		Pitt, et al.	08-06-1991	
		5,149,416		Osterhoudt, et al.	09-22-1992	
		5,153,002		McMullen	10-06-1992	
		5,160,745		DeLuca, et al.	11-03-1992	
		5,183,690		Carr, et al.	02-02-1993	
		5,185,408		Tang, et al.	02-09-1993	
		5,219,564		Zalipsky, et al.	06-15-1993	
		5,268,182		Brinker, et al.	12-07-1993	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office. ³	Number ⁴	Kind Code ⁵ (if known)				

Examine Signature		Date Considered	
-------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO: Assistant Commission for Patent, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Application Number		Continuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
Examiner Name							
Sheet	5	of	20	Attorney Docket Number	UTSB 493 CIP CON (5)		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		5,271,961		Mathiowitz, et al.	12-21-1993	
		5,278,201		Dunn, et al.	01-11-1994	
		5,278,202		Dunn, et al.	01-11-1994	
		5,286,495		Batch, et al.	02-15-1994	
		5,288,500		Ibsen	02-22-1994	
		5,334,640		Desai, et al.	08-02-1994	
		5,410,016		Hubbell, et al.	04-25-1995	
		5,432,210		Bogan, Jr.	07-11-1995	
		5,529,914		Hubbell et al.	06-25-1996	
		5,573,934		Hubbell et al.	11-12-1996	
		5,834,274		Hubbell et al.	11-10-1998	
		5,837,747		Soon-Shiong et al.	11-17-1998	
		5,843,743		Hubbell et al.	12-01-1998	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office. ³	Number ⁴	Kind Code ⁵ (if known)				

Examine Signature		Date Considered	
-------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO: Assistant Commission for Patent, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				C mplet If Kn wn			
				Applicati n Number		Continuati n f 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
Examiner Name							
Sheet	6	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials ¹	Cite No. ²	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ³
		ALTMAN, et al., "Long-term plasma glucose normalization in experimental diabetic rats with microencapsulated implants of benign human insulinomas," <i>Diabetes</i> 35:625-33 (1986).	
		AMUDESWARE, et al., "Short-term biocompatibility studies of hydrogel-grafted collagen copolymers," <i>J. Biomed. Materials Res.</i> 20:1103-09 (1986).	
		ANDRADE, et al., "Protein Adsorption and Materials Biocompatibility: A Tutorial Review and Suggested Hypothesis," <i>Advances in Polymer Science</i> , published by Springer-Verlag Berlin Heidelberg, pp. 1-63 (1986).	
		BUCK, "Cell Surface Receptors for Extracellular Matrix Molecules," <i>Ann. Rev. Cell Bio.</i> 3:179-205 (1987).	
		CHESNEAU, et al., "Polymerization induito sous Irradiation Lager Visible," <i>J. Bio. Ang. Chemie.</i> 135:41-64 (1985).	
		CHIANG, et al., "Preparation and properties of UV-autocurable BTDA-based polyester multiacrylates. I. effects of acrylic functionality and poly molecular weight," <i>J. App. Pol. Sci.</i> 41:2971-85 (1990).	
		CHUN, et al., "Studies on microbial transformations XIX. use of immobilized cells of Streptomyces Roseochromogenes for the 16 a-hydroxylation of dehydroepiandrosterone," <i>J. Gen. App. Microbiol.</i> 27:505-09 (1981).	
		COHN, et al., "Biodegradable PEO/PLA block copolymer," <i>J. Biomed. Materials Research</i> 22:993-1009 (1988).	
		COLEMAN, et al., "Blood-materials interactions: The minimum interfacial free energy and the optimum polar/apolar ratio hypothesis," <i>J. Biomed. Material Res.</i> 16:381-398 (1982).	
		CROOKS, et al., "Microencapsulation of mammalian cells in a HEMA-MMA copolymer: effects on capsule morphology and permeability," <i>J. of Biomedical Materials Res.</i> 24:1241-62 (1990).	

Examiner's Signature	Date Considered
----------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	Continuation of 09/694,836
		Filing Date	June 25, 2003
		First Named Inventor	Jeffrey A. Hubbell
		Group Art Unit	
Examiner Name		Attorney Docket Number	UTSB 493 CIP CON (5)
Sheet	7	of	20

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T²
		DARQUY, et al., "Immunoisolation of pancreatic a cells by microencapsulation - an <i>in vitro</i> study," <i>Diabetologia</i> 28:776-80 (1985).	
		DENNISON, Ph.D. Thesis, Massachusetts Institute of Technology (1986).	
		DESAI, et al., "Solution technique to incorporate polyethylene oxide and other water-soluble polymers into surfaces of polymeric biomaterials," <i>Biomaterials</i> 12:144-53 (1991).	
		DESAI, et al., "Surface modifications of polymeric biomaterials for reduced thrombogenicity," <i>Polymeric Materials Science and Engineering Proceedings of the ACS Division of Polymeric Materials Science and Engineering</i> 62:731-35 (1990).	
		DESAI, et al., "Surface physical interpenetrating networks of poly(ethylene terephthalate) and poly(ethylene oxide) with biomedical applications," <i>Macromolecules</i> 25:226-32 (1992).	
		DESAI, et al., "The short-term blood biocompatibility of poly(hydroxyethyl methacrylate-co-methyl methacrylate) in an <i>in vitro</i> flow system measured by the digital videomicroscopy," <i>J. Biomaterial Sci. Polymer Ed.</i> 1(2):123-46 (1989).	
		DIAMOND, et al., "Synergistic effects of interceed (Tc7) and heparin in reducing adhesion formation in the rabbit uterine horn model," <i>Fertility and Sterility</i> 55(2):389-94 (1991).	
		DOMB, et al., "Poly(anhydrides). 3. poly(anhydrides) based on aliphatic aromatic diacids," <i>J. Macromolecules</i> 22:3200-04 (1989).	
		DOODY, et al., "Recombinant tissue plasminogen activity reduces adhesion formation in a rabbit uterine horn model," <i>Fertility and Sterility</i> 51(3):509-12 (1989).	
		DUNN, et al., "Synergistic effect of intraperitoneally administered calcium channel blockade and recombinant tissueplasminogen activator to prevent adhesion formation in an animal model," <i>Am. J. Obstetn. and Gynecol.</i> 164(5):1327-30 (1991).	

Examiner's Signature		Date Considered	
-----------------------------	--	------------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



+

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO				C mplet if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Applicati n Numb r	Continuati n f 09/694,836
				Filing Date	June 25, 2003
				First Named Inventor	Jeffrey A. Hubbell
				Group Art Unit	
				Examiner Name	
Sheet	8	of	20	Attorney Docket Number	UTSB 493 CIP CON (5)

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		DUPUY, et al., "In Situ Polymerization of a Microencapsulating Medium Round Living Cells," <i>J. of Biomedical Materials Res.</i> 22:1061-70 (1988).	
		DUPUY, et al., "Microencapsulation of isolated pituitary cells by polyacrylamide microlatex coagulation on agarose beads," <i>Biomaterials</i> 12:493-495 (1991).	
		EATON, "Dye sensitized photopolymerization," <i>Advances in Photochemistry</i> , 13:427-81 (John Wiley & Sons, Inc. 1986).	
		EPAILLARD, et al., "Plasma Induced Polymerization," <i>J. Applied Polymer Sci.</i> 38:887-98 (1989).	
		EPAILLARD, et al., "Polymerisation induit par un plasma froid. Etude des mecanismes de polymerisation en gonction do l'epaisseur du film," <i>Makromol. Chem.</i> 189:1035-42 (1988).	
		FOUASSIER, et al., "Polymerization induit sous irradiation laser visible 4, Le systeme eosine/photoamorceur ultra-violet/amine," <i>Makromol. Chem.</i> 192:245-260 (1991).	
		FUÉRTGES, et al., "The clinical efficacy of poly(ethylene glycol) modified proteins," <i>J. Controlled Release</i> 11:139-48 (1990).	
		FUKUI, et al., "Application of photo-crosslinkable resin to immobilization of an enzyme," <i>FEBS Letters</i> 66(2):179-82 (1976).	
		FUKUI, et al., "Applications of biocatalytic immobilized by prepolymer methods," <i>Adv. of Biochemical Eng. and Biotech.</i> 1201:1-33 (1984).	
		FUKUI, et al., "Entrapment of biocatalysts with photo-cross-linkable resin prepolymers and urethane resin prepolymers," <i>Methods in Enzymology</i> 135:230-53 (1987).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

+



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Application Number		Continuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
				Examiner Name			
Sheet	9	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		FUKUI, et al., "Several novel methods for immobilization of enzymes microbial cells and organelles," <i>Biochimie</i> 62:381-86 (1980).	
		FUKUZAI, et al., "A new biodegradable copolymer of glycolic acid and lactones with relatively low molecular weight prepared by direct copolycondensation in the absence of catalysts," <i>J. of Biomedical Materials Research</i> 25:315-28 (1991).	
		GABBAY, et al., "New outlook on pericardial substitution after open heart operations," <i>Ann. Thorac. Surg.</i> 48:803-12 (1989).	
		GHARAPATIAN, et al., "Encapsulation of viable cells within polyacrylate membranes," <i>Biotechnology and Bioengineering</i> 28:1595-1600 (1986).	
		GHARAPATIAN, et al., "Polyacrylate microcapsules for cell encapsulation: Effects of copolymer structure on membrane properties," <i>Biotechnology and Bioengineering</i> 30:775-79 (1987).	
		GIBBLE, et al., "Fibrin glue: the perfect operative sealant?," <i>Transfusion</i> 30(8):741-47 (1990).	
		GIN, et al., "Agarose encapsulation of islets of langerhans: Reduced toxicity <i>in vitro</i> ," <i>J. Microencapsulation</i> 4:239-42 (1987).	
		GOLANDER, et al., "Preparation and protein adsorption properties of photopolymerized hydrophilic films containing N-vinylpyrrolidone (NVP), acrylic acid (AA) or ethyleneoxide (EO) units as studied by ESCA," <i>Colloids and Surfaces</i> 21:149-65 (1986).	
		GOLDBERG, et al., "An evaluation of the gore-tex surgical membrane for the prevention of postoperative peritoneal adhesion," <i>Obstetrics and Gynecology</i> 70(6):846-48 (1987).	
		GOMBOTZ, et al., "Immobilization of poly(ethylene oxide) on poly(ethylene terephthalate) using a plasma polymerization process," <i>J. of Applied Polymer Science</i> 37:91-107 (1989).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

<p>Substitute for form 1449A/PTO</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p>(use as many sheets as necessary)</p>				Complete If Known			
				Applicant Number		Continuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
Examiner Name							
Sheet	10	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		GOOSEN, et al., "Optimization of microencapsulation parameters: Semipermeable microcapsules as a bioartificial pancreas," <i>Biotechnology and Bioengineering</i> 27:146-50 (1985).	
		GRAHAM, et al., "Hydrogels for controlled drug delivery," <i>Biomaterials</i> 5:27-36 (1994).	
		HARRIS, "Laboratory synthesis of polyethylene glycol derivatives," <i>Micromol. Chem. Phys.</i> C25(3):325-73 (1985).	
		HATTORI, et al., "Fibroblast Cell Proliferation on Charged Hydroxyethyl Methacrylate Copolymers," <i>J. of Colloid and Interface Science</i> 104:72-78 (1985).	
		HELLER, et al., "Controlled release of water-soluble macromolecules from bioerodible hydrogels," <i>Biomat.</i> 40:262-66 (1983).	
		HELLER, et al., "Poly(ortho esters)," <i>Biodegradable Polymers as Drug Delivery System</i> (Chasin, et al., eds.), pp. 121-161 (1990).	
		HOLLAND, et al., "Polymers for biodegradable medical devices. 1. The potential of polyesters as controlled macromolecular release systems," <i>J. Controlled Release</i> 4:155-80 (1986).	
		HOLTZ, "Prevention and management of peritoneal adhesions," <i>Fertility and Sterility</i> 42(4):497-07 (1984).	
		HORBETT, "Mass action effects on competitive adsorption of fibrinogen from hemoglobin solutions and from plasma," <i>Rhomb. Haemostas.</i> (Stuttgart), 51(2):174-81 (1984).	
		HU, et al., "Effect of soft segment in degradation kinetics in polyethylene glycol/poly(L-lactide) block copolymers," <i>Polymer Bulletin</i> 30:669-76 (1993).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				C m p l t e i f K n w n			
				Applicati n Number		C ntinuati n of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
Examiner Name							
Sheet	11	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		HUFFMAN, et al., "Effect of carboxyl end groups on hydrolysis of polyglycolic acid," <i>J. Polymer Science, Polymer Chemistry Edition</i> 23:1939-1951 (1985).	
		HUNT, et al., "Synthesis and evaluation of a prototypal artificial red cell," <i>Science</i> 6:1165-68 (1985).	
		HUNTER, et al., "Surface modification of polyurethane to promote long-term patency of peritoneal access devises," <i>Trans. Am. Soc. Artif. Intern. Organs</i> 29:250-54 (1983).	
		Interceed (TC7) Adhesion Barrier Study Group, "Prevention of postsurgical adhesions by Interceed (TC7), an absorbable adhesion barrier: a prospective, randomized multicenter clinical study," <i>Fertility and Sterility</i> 51(6):933-938 (1989).	
		ITOH, et al., "Development of novel photocurable medical-use resins; Molecular design considerations and basic properties," <i>Jap. J. Artif. Organs</i> 18(1):132-136 (1989).	
		IWATA, et al., "Evaluation of microencapsulated islets in agarose gel as bioartificial pancreas by studies of hormone secretion in culture and by xenotransplantation," <i>Diabetes</i> 38:224-25 (1989).	
		IWATA, et al., "The use of photocrosslinkable polyvinyl alcohol in the immunoisolation of pancreatic islets," <i>Transplantations Proceedings</i> 22(2): 797-99 (1990).	
		KANAKO, et al., CA 84:123221g, "Radiation-induced graft copolymerization to polyester, XVII. Grafting of polyethylene glycol dimethacrylates and diacrylates onto poly(ethylene terephthalate) fabric with electron beams," <i>Nippon Genshiryoky Kenkyusho Nempo</i> 5030:48-59 (1975).	
		KAREL, et al., "The immobilization of whole cells: engineering principals," <i>Chemical Engineering Science</i> 40(8):1321-54 (1985).	
		KARU, "Yearly review - Effects of visable radiation on cultured cells," <i>Photochemistry and Photobiology</i> 52(6): 1089-98 (1990).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Completeness of Known			
				Applicant Number		Continuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
				Examiner Name			
Sheet	12	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		KENLEY, et al., "Poly(lactide-co-glycolide) decomposition kinetics <i>in vivo</i> and <i>in vitro</i> ," <i>Macromolecules</i> 20:2398-2403 (1987).	
		KIMURA, et al., "Some properties of an immobilized glycosyl system of yeast in fermentative phosphorylation of nucleotides," <i>European J. Appl. Microbiol. Biotechnol.</i> 11:78-80 (1981).	
		KING, et al., "Alginate-polylysine microcapsules of controlled membrane molecular weight cutoff for mammalian cell culture engineering," <i>Biotechnology Progress</i> 3(4):231-40 (1987).	
		KOBAYASHI, et al., "Water-curable and biodegradable prepolymers," <i>J. Biomed. Mat. Res.</i> 25:1481-94 (1991).	
		KOSHIBA, et al., "Properties of ultra-violet curable polyurethane acrylates," <i>J. Materials Sci.</i> 17:1447-58 (1982).	
		KRICHELDORF, et al., "ABA Triblock copolymers of L-Lactide and Poly(ethylene glycol)," <i>Makromol. Chem.</i> 194:715-25 (1993).	
		KULKARNI, et al., "Biodegradable Poly(lactic acid) Polymers" <i>J. Biomed. Mater. Res.</i> 5:169-81 (1971).	
		KULKARNI, et al., "Polylactic acid for surgical implants," <i>Arch. Surg.</i> 93:841-45 (1966).	
		KUMAKURA, et al., "Immobilization of microbial cells in membrane form by radiation-induced cast-polymerization," <i>Die Angewandte Makromol. Chem.</i> 115:75-86 (1986).	
		LACY, et al., "Maintenance of normoglycemia in diabetic mice by subcutaneous xenografts of encapsulated islets," <i>Science</i> 254:1782-94 (1991).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	
				Continuation of 09/694,836	
				Filing Date	
				June 25, 2003	
				First Named Inventor	
				Jeffrey A. Hubbell	
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	
				UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		LAMBERTI, et al., "Microencapsulation of mammalian cells in polyacrylates," <i>Applied Biochemistry and Biotechnology</i> 10:101-05 (1984).	
		LEACH, et al., "Reduction of postoperative adhesions in the rat uterine horn model with polyxamer 407," <i>Am. J. Obstet. Gynecol.</i> 162(5):1317-19 (1990).	
		LEE, et al., "Protein-resistant surfaces prepared by PEO-containing block copolymer surfactants," <i>J. Biomedical Materials Research</i> 23:351-68 (1989).	
		LIM, et al., "Microencapsulated islets as bioartificial endocrine pancreas," <i>Science</i> 210:908-10 (1980).	
		LIN, et al., "Optically clear simultaneous interpenetrating polymer networks based on Poly(ethylene glycol) diacrylate and epoxy. I. Preparation and characterization," <i>J. Polymer Sci.</i> 30:1941-51 (1992).	
		LIPATOYA, "Medical polymer adhesives," <i>Advances in Polym. Sci.</i> 79:85-92 (1986).	
		MAECHLING-STSRASSER, et al., "Peadsorption of polymers on glass and silica to reduce fibrinogen adsorption," <i>J. of Biomedical Materials Research</i> 23:1385-93 (1989).	
		MALLABONE, et al., "Microencapsulation of human diploid fibroblasts in cationic polyacrylates," <i>Dept. of Chem. Eng. and Applied Chem. and Centre for Biomaterials</i> (1989).	
		MATSUDA, et al., "Photoinduced prevention of tissue adhesion," <i>ASAIO Trans.</i> 38:M154-M155 (1992).	
		MAYER, et al., "Effect of viscous macromolecules on peritoneal plasminogen activator activity: A potential mechanism for their ability to reduce postoperative adhesion formation," <i>Am. J. Obstet. L. Gynecol.</i> 159(4):957-63 (1988).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Applicant Number		Continuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
Examiner Name							
Sheet	14	of	20	Attorney Docket Number	UTSB 493 CIP CON (5)		

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		McMAHON, et al., "Feasibility of cellular microencapsulation technology for evaluation of anti-human immunodeficiency virus drug <i>in vivo</i> ," <i>J. Nat. Cancer Inst.</i> 82(22):1761-65 (1990).	
		MENZIES, et al., "The role of plasminogen activator in adhesion prevention," <i>Surgery Gynecology and Obstetr.</i> 172:362-66 (1991).	
		MERRILL, et al., "Platelet-compatible hydrophilic segmented polyurethanes from polyethylene glycols and cyclohexane diisocyanate," <i>Trans. Am. Soc. Artif. Intern. Organs</i> 28:482-87 (1982).	
		MILLER, et al., "Degradation rates of oral resorbable implants (Polylactates and Polyglycolates): Rate modification with changes in PLA/PGA copolymer ratios," <i>J. Biomed. Mater. Res.</i> 11:711-19 (1977).	
		MIYAKE, et al., "Solution properties of synthetic polypeptides. XVIII: Helix-coil transition of poly-m2-(2-Hydroxyethyl)-L-Glutamine," <i>Biopolymers</i> 13:1173-86 (1974).	
		MIYAMA, et al., "Graft copolymerization of methoxypoly (ethylene Glycol) methacrylate onto polyacrylonitrile and evaluation of nonthrombogenicity of the copolymer," <i>Journal of Applied Polymer Science</i> 35:115-25 (1988).	
		MORI, et al., "A new antithrombogenic material with long poly(ethylene oxide) chains," <i>Trans. Am. Soc. Artif. Intern. Organs</i> 28:459-463 (1982).	
		NAGAOKA, et al., "Clinical application of antithrombogenic hydrogel with long poly(ethylene oxide) chains," <i>Biomaterials</i> 11:119-121 (1990).	
		NAGAOKA, et al., "Interaction between blood components and hydrogels with Poly(ethylene) Chains," Hoffman, et al., <i>Polymers as Biomaterials</i> , Shalaby, ed., pp. 360-75 (Plenum Press).	
		NECKERS, et al., "Photopolymerization using derivatives of fluorescein," American Chemical Society, <i>Proceedings of the ACS Division of Polymeric Materials: Science and Engineering</i> , 60:15-16 (1989).	

Examiner's Signature	Date Considered
----------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				C mplete If Kn wn			
				Application Number		Continuation f 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
Examiner Name							
Sheet	15	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		NOJIRI, et al., "In Vivo protein adsorption onto polymers: A transmission electron microscopic study," <i>Trans. Am. Soc. Artif. Intern. Organs</i> 35:357-61 (1989).	
		O'SHEA, et al., "Encapsulation of rat Islets of langerhans prolongs xenograft survival in diabetic mice," <i>Diabetes</i> 35:943-46 (1986).	
		OKADA, et al., "Application of entrapped growing yeast cells to peptide secretion system," <i>Appl. Microbiol. Biotechnol.</i> 26:112-16 (1987).	
		OMATA, et al., "Immobilization of microbiol cells and enzymes with hydrophobic photo-crosslinkable resin prepolymers," <i>European J. Appl. Microbiol.</i> 6:207-15 (1979).	
		OMATA, et al., "Stereoselective hydrolysis of d,l-methyl succinate by gel-entrapped rhodotorula minute uzr texensis cells in organic solvent," <i>Eur. J. Microbiol. Biotechnol.</i> 11:199-04 (1981).	
		OMATA, et al., "Transformation of steroids by gel-entrapped nocardia rhodocrous cells in organic solvent," <i>Eur. J. Appl. Microbiol. Biotechnol.</i> 8:143-55 (1979).	
		PAGIDAS, et al., "Effect of ringer's lactate. Interceed (TC7) and gore-tex surgical membrane on postsurgical adhesion formation," <i>Fertility and Sterility</i> 57(1): 199-01 (1992).	
		PARK, et al., "Immobilization of arthrobacter-simplex cells in thermally reversible hydrogels comparative effects of organic solvent and polymeric surfactant on steroid conversion," <i>Biotechnology Letters</i> 11(1):17-22 (1989).	
		PETERSON, "Polyethylene glycol diacrylates as embedding media for electron microscopy," Thirtieth Annual Meeting, Electron Microscopy Society of America and First Pacific Regional Conference on Electron Microscopy, 144-45 (1972).	
		PHILIPS, et al., "Radiation curable water dilutable polyester acrylates," <i>European Polymers Paint Colour J.</i> 183(4322): 38-40 (1993).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known			
				Application Number		Continuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
				Examiner Name			
Sheet	16	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁴
		PITT, et al., "Aliphatic polyesters. I. The degradation of Poly(-caprolactone) <i>in vivo</i> ," <i>J. Applied Polymer Science</i> 26:3779-87 (1981).	
		PITT, et al., "Aliphatic polyesters. II. The degradation of poly(DL-lactide), poly (caprolactone), and their copolymers <i>in vivo</i> ," <i>Biomaterials</i> 2:215-20 (1981).	
		PRIOLA, et al., "Investigation on the structure-property relationships for films obtained from UV curable coatings," <i>Progress in Organic Coatings</i> 22:301-14 (1993).	
		PRIOLA, et al., "Properties of polymeric films obtained from u.v. cured poly(ethylene glycol) diacrylates," <i>Polymer</i> . 34(17):3653-3657 (1993).	
		PUNNONEN, et al., "Polyethylene glycol 4000 in the prevention of peritoneal adhesions," <i>Fertility and Sterility</i> 38(4):491-92 (1982).	
		RATZSCH, et al., "Strahlkenchische Antielektrostatik-Ausrüstung," <i>Acta. Polymerica</i> 41(8):453-460 (1990).	
		REACH, et al., "The U-shaped bioartificial pancreas with rapid glucose-insulin kinetics," <i>Diabetes</i> 33:752-61 (1984).	
		REMPP, et al., "Anionically polymerized star macromolecules having divinyl benzene cores with grafted Poly(Ethylene oxide) arms as biomaterials," Abstract, <i>Polymer Reprints</i> 31(1):215 (1990).	
		REUVENY, et al., "Factors affecting cell attachment, spreading, and growth on derivatized microcarriers. I. Establishment of working system and effect of the type of the amino-charged groups," <i>Biotechnol. Bioeng.</i> 25:469-80 (1983).	
		RONEL, et al., "Macroporous hydrogen membranes for a hybrid artificial pancreas. 1. synthesis and chamber fabrication," <i>J. of Biomedical Materials Res.</i> 17(5):855-64 (1983).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	Continuation of 09/694,836
		Filing Date	June 25, 2003
		First Named Inventor	Jeffrey A. Hubbell
		Group Art Unit	
Examiner Name		Attorney Docket Number	UTSB 493 CIP CON (5)
Sheet	17	of	20

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		SAWHNEY, et al., "Poly(ethylene oxide)-graft-poly(L-lysine) copolymers to enhance the biocompatibility of poly(L-lysine)-alginate microcapsule membranes," <i>Biomaterials</i> 13(12):863-870 (1992).	
		SAWHNEY, et al., "Rapidly degraded terpolymers of dl-lactide, glycolide, and acaprolactone with increased hydrophilicity by copolymerization with polyethers," <i>J. Biomedical Materials Research</i> 24:1397-1411 (1990).	
		SEFTON, et al., "Hydrophilic polyacrylates for the microencapsulation of fibroblasts or pancreatic islets," <i>J. of Controlled Release</i> 6:177-187 (1987).	
		SHIMIZU, et al., "Studies on composites of collagen and a synthetic polymer," <i>Biomater. Med. Dev. Art. Org.</i> 6(4):375-391 (1978).	
		SKARDA, et al., "Biodegradable hydrogel for controlled release of biologically active macromolecules," <i>J. Bioactive and Compatible Polymers</i> 8:24-37 (1993).	
		SONOMOTO, et al., "Growth of <i>Curvularia lunata</i> spores into mycelia form within various gels, and steroid 11-hydroxylation by the entrapped mycelia," <i>J. Ferment. Technol.</i> 59(6):465-469 (1981).	
		SPECKHARD, et al., "Properties of UV-curable polyurethane acrylates: Effect of reactive diluent," <i>J. Appl. Poly. Sci.</i> 30(2):647-66 (1985).	
		SPILIZEWSKI, et al., "The effect of hydrocortisone acetate loaded Poly(DL-lactide) films on the inflammatory response," <i>J. Controlled Release</i> 2:197-203 (1985).	
		STEINLEITNER, et al., "Poloxamer 407 as an intraperitoneal barrier material for the prevention of postsurgical adhesion formation and reformation in rodent models for reproductive surgery," <i>Obstetrics and Gynecology</i> 77(1):48-52 (1991).	
		STEVENSON, et al., "Graft copolymer emulsions of sodium alginate with hydroxyalkyl methacrylates for microencapsulation," <i>Biomaterials</i> 8:449-57 (1987).	

Examiner's Signature	Date Considered
----------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	Continuation of 09/694,836
		Filing Date	June 25, 2003
		First Named Inventor	Jeffrey A. Hubbell
		Group Art Unit	
Examiner Name			
Sheet 18 of 20	Attorney Docket Number	UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		STEVENSON, et al., "Microencapsulation of mammalian cells in a hydroxyethyl methacrylate-methyl methacrylate copolymer: Preliminary development," <i>Biomater. Art. Cells</i> 16:747-69 (1988).	
		SUN, et al., "Encapsulated versus modified endocrine cells for organ replacement," <i>Trans. Am. Soc. Artif. Intern. Organs</i> 33:787-90 (1987).	
		SUN, et al., "Non-fouling biomaterial surfaces: II. Protein adsorption on radiation grafted polyethylene glycol for methacrylate copolymers," <i>Center for Bioengineering</i> 28(1):292-94 (1987).	
		SUN, et al., "The use, in diabetic rats and monkeys, of artificial capillary units containing Cultured islets of langerhans Artificial Endocrine Pancreas," <i>Diabetes</i> 26(12):1136-39 (1977).	
		SUZUKI, et al., "Microencapsulation and dissolution properties of a neuroleptic in a biodegradable polymer, Poly(d,l-lactide)," <i>J. Pharmaceutical Sciences</i> 74(1):20-24 (1985).	
		TANAKA, et al., "Immobilization of yeast microbodies by inclusion with photo-crosslinkable resins," <i>Eur. J. Biochem.</i> 80:193-97 (1977).	
		THOMAS, ed., "Lumen," in <i>Taber's Cyclopedic Medical Dictionary</i> , 12 th Edition (F.A. Davis Company, Philadelphia).	
		THOMPSON, et al., "Fibrin glue: A review of its preparation efficacy, and adverse effects as a topical hemostat," <i>Drug Intelligence and Clinical Pharmacy</i> 22:946-52 (1988).	
		URETZKY, et al., "Long-term evaluation of a new selectively biodegradable vascular graft coated with polyethylene oxide-poly(lactic acid) for right ventricular conduit," <i>J. Thorac Cardiovasc. Surg.</i> 133:769-80 (1990).	
		URMAN, et al., "Effect of hyaluronic acid on postoperative intraperitoneal adhesion formation and reformation in the rat model," <i>Fertility and Sterility</i> 56(3):568-70 (1990).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				C mplete If Kn wn			
				Applicati n Number		C ntinuation of 09/694,836	
				Filing Date		June 25, 2003	
				First Named Inventor		Jeffrey A. Hubbell	
				Group Art Unit			
				Examiner Name			
Sheet	19	of	20	Attorney Docket Number		UTSB 493 CIP CON (5)	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		URMAN, et al., "Effect of hyaluronic acid on postoperative intraperitoneal adhesion formation and reformation in the rat model," <i>Fertility and Sterility</i> 56(3):563-67 (1991).	
		VAN NEERBOS, "Parameters in UV curable materials which influence cure speed," <i>J. Oil Col. Chem. Assoc.</i> 61(1):241-50 (1978).	
		VAN WACHEM, et al., "Adhesion of cultured human endothelial cells onto methacrylate polymers with varying surface wettability and charge," <i>Biomaterials</i> 8:323-28 (1987).	
		VISSCHER, et al., "Biodegradation of and tissue reaction to 50:50 poly(DL-lactide-co-glycolide) microcapsules," <i>J. Biomedical Materials Research</i> 19:349-65 (1985).	
		WEN, ET al., "Microcapsules through polymer compellation," <i>Dept. of Chemistry and Inst. For Aviation Research</i> (1990).	
		WONG, et al., "The viability and regeneration of artificial cell microencapsulated rat hepatocyte xenograft transplants in mice," <i>Biomat.</i> 16(4):731-39 (1988).	
		WOODWARD, et al., "The intracellular degradation of poly(ϵ -caprolactone)," <i>J. Biomedical. Materials Research</i> 19:437-44 (1985).	
		WUJEK, et al., "A carbohydrate polymer that effectively prevents epidural fibrosis at laminectomy sites in the rat," <i>Exp. Neurology</i> 114:237-45 (1991).	
		ZHU, et al., "Preparation and properties of D,L-lactide and ethylene oxide copolymer: A modifying biodegradable polymeric material," <i>J. Polymer Sci. Part C: Polymer Letters</i> 24:331-37 (1986).	
		ZHU, et al., "Preparation characterization and properties of polylactide (PLA)- Poly(ethylene Glycol) (PEG) copolymers: A potential drug carrier," <i>J. Applied Sci.</i> 39:1-9 (1990).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB08A (10-96)
Approved for use through 10/31/99. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete If Known	
				Application Number	
				Continuation of 09/694,836	
				Filing Date	
				June 25, 2003	
				First Named Inventor	
Jeffrey A. Hubbell					
Group Art Unit					
Examiner Name					
Attorney Docket Number					
UTSB 493 CIP CON (5)					

Sheet	20	of	20
-------	----	----	----

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		ZHU, et al., "Super microcapsules" (SMC), I. Preparation and Characterization of Star Polyethylene Oxide (PEO)-Polylactide (PLA) Copolymers," <i>J. Polymer Sci.: Part A: Polymer Chemistry</i> 27:2151-59 (1989).	

Examiner's Signature		Date Considered	
----------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.